

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Idaho**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory**

Project **ID-OIM-109 / Health Physics Instrument Laboratory**

Report Number: **GEN-01b**

Print Date: **3/10/2000**

HQ ID: **0567**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Definition of Scope: This replacement HPIL will be approximately 15,500 square feet. The new HPIL facility will replace a 40 year old facility (CF-633) which was originally designed for the testing of Naval guns during World War II. The existing HPIL has significant structural, mechanical, electrical, environmental, safety and code conformance deficiencies. This project provides for the design, government furnished equipment procurement, project management, and construction of this laboratory.

The assumptions used to develop the current project scope are:

- a. The new HPIL facility will be required to meet American National Standards Institute (ANSI) N323 guidelines as specified by the DOE Order 5480.11, "Radiation Protection for Occupational Workers."
- b. The new facility is based on code requirements for safe handling of radioactive sources, operations associated with equipment testing and calibration, functional layout of the building, and shielding requirements for each radioactive source and surrounding areas.

Technical Approach: All DOE facilities are designed and constructed in accordance with applicable Public Laws, Executive Orders, OMB Circulars, Federal Property Management Regulations, and DOE Orders. The total estimated cost of the project includes the cost of measures necessary to assure compliance with Executive Order 12088, "Federal Compliance with Pollution Control Standards"; section 19 of the Occupational Safety and Health Act of 1970, the provisions of Executive Order 12196, and the related Safety and Health provisions for Federal Employees (CFR Title 29, Chapter XVII, Part 1960); and the Architectural Barriers Act, Public Law 90-480, and implementing instruction in 41 CFR 101-19.6. The project will be located in an area not subject to flooding determined in accordance with Executive Order 11988.

The Department of Energy Idaho Operations Office (DOE-ID) shall be responsible for implementation of the project, including selection of principal contractors and approval of specified procurement actions. DOE-ID project management shall be performed by Construction Management, Office of Program Execution and Office of Infrastructure Management. Administrative and other project support shall be furnished to the project on a matrix basis by the DOE-ID organization.

Lockheed Martin Idaho Technologies Company (LMITCO) shall be the operating contractor responsible for the development of the projects technical requirements, completion of the Architectural and Engineering Design, review and management of the engineering and construction activities, procurement of selected equipment, construction subcontracting, checkout of systems, and maintenance (not funded by this project) of the completed project. LMITCO project management and construction management shall be performed by the Site Services Organization as required to complete the project in a timely, safe, and cost effective manner.

Project Status in FY 2006:

Construction is scheduled to be complete the 3rd quarter FY 2002, all close-out activities are scheduled to be completed in FY 2002.

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Post-2006 Project Scope:

None. (Facility maintenance will be completed under the direction of site-wide operations.)

Project End State

The INEEL Health Physics Instrument Laboratory (HPIL) will provide a fully compliant facility for the repair, calibration, dosimeter irradiation, and research and development required to support radiation detection equipment needs in order to meet INEEL program mission needs.

Cost Baseline Comments:

The costs are based upon activity based costs and standard industry accepted estimating basis. Project Cost estimates are developed at each phase of the project per the INEEL Cost Estimating Guide. These phases are identified as (1) Conceptual Design, (2) Title II Design; and (3) Approved for Construction (AFC). These estimates may change through time as a part of the normal design evolution, further definition of requirements needed to support the existing mission and project uncertainties based on items such as the stage of design complexity (e.g., conceptual versus AFC), award prices, approved baseline plans, and subsequent changes. At each project phase, a contingency analysis is performed on each estimate to determine the appropriate level of contingency required to perform the project. Cost estimates are prepared to encompass all scope required to ensure this project supports compliance with the FFACO, and the Idaho Settlement Agreement.

The INEEL Health Physics Instrument Laboratory Project Baseline Summary (PBS) does not reflect the changes to the fixed asset acquisition appropriation methodology where outyear requests are to be approximated in FY 1998 or the new LICP project start year. The PBS does reflect the funding in the required year as planned.

Safety & Health Hazards:

The principal hazards associated with this project are standard industrial hazards and construction. An existing 1993 facility low hazard use and construction safety analysis study on the existing HIPL facility will be updated during April and May 1999. A new safety analysis study will be based on the current title I design for the new facility. No hazard level change is expected since the method of operation (sealed radiation sources) is going to be the same as in 1993, plus there is additional automation. The HPIL at the INEEL is used by INEEL workers.

Safety & Health Work Performance:

Safety is mitigated through incorporation of safety codes and standards in the project design, i.e. ANSI, NFPA, NEC, etc.. Representatives from S&H will be involved in the review of the design package to assure adequate controls are included in the construction package. Construction subcontractors are required to submit a project safety plan for review and approval prior to start of construction. Construction contracts require daily Plan of Day meetings and safety oversight. In addition weekly industrial safety and industrial hygiene oversight and assessments are required. A Facility Acceptance Review Committee will be established which will include representation from the occupational and industrial safety, tenant, maintenance, project, and program organizations. The committee will define preventative maintenance procedures, operations procedures, and training requirements; verify all safety concerns have been corrected; verify systems have been tested and are ready to be placed in operations; and conduct a facility inspection to verify readiness prior to the facility being occupied and operated.

PBS Comments:

N/A

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Project Description Narratives

Baseline Validation Narrative:

The INEEL EM Integration Board (joint senior level DOE-ID and LMITCO management) provided an independent validation of the Project Baseline Summary in respect to "compliance driven" activities, project planning and cost estimating beginning in Fiscal Year (FY) 1997 through FY2002. Scope, schedule, cost estimates, and basis of the estimates (including resource requirements) were reviewed and validated by a team consisting of six members.

This project's need was validated against the existing and planned mission needs of the INEEL.

This project was validated by DOE-ID in April 1997 and 1998 by the annual construction project validation process. This validation process evaluates the project for readiness to proceed into the Department's budget process, and examines the planning, development, and baseline of the project to ensure that the funds requested are commensurate with the project's anticipated scope and schedule.

General PBS Information

Project Validated? Yes Date Validated: 4/1/1997

Has Headquarters reviewed and approved project? No

Date Project was Added: 12/1/1997

Baseline Submission Date:

FEDPLAN Project? Yes

Drivers:	CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
	Y	Y	N	N	N	Y	Y	Y

Project Identification Information

DOE Project Manager: Wayne B. Shigley

DOE Project Manager Phone Number: 208-526-1986

DOE Project Manager Fax Number: 208-526-9150

DOE Project Manager e-mail address: shiglewb@inel.gov

Is this a High Visibility Project (Y/N):

Planning Section

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Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006	
PBS Baseline (current year dollars)	12,669	0	12,669	230	230	50		1,049	7,310	2,520	1,510	0	0	0	0	
PBS Baseline (constant 1999 dollars)	12,260	0	12,260	230	230	50		1,049	7,118	2,403	1,410	0	0	0	0	
PBS EM Baseline (current year dollars)	12,669	0	12,669	230	230	50		1,049	7,310	2,520	1,510	0	0	0	0	
PBS EM Baseline (constant 1999 dollars)	12,260	0	12,260	230	230	50		1,049	7,118	2,403	1,410	0	0	0	0	
	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%	0.00%	0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

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2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 12/30/2002

Current Projected End Date of Project: 12/30/2002

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	11,703	Actual 1997 Cost:	230	Actual 1998 Cost:	
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	11,473	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):		310	
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	11,783				

Project Cost Changes

Cost Adjustments Reconciliation Narratives

Cost Change Due to Scope Deletions (-):

Cost Reductions Due to Efficiencies (-):

Cost Associated with New Scope (+):

Cost Growth Associated with Scope Previously Reported (+):

Cost Reductions Due to Science & Technology Efficiencies (-):

Subtotal: 11,783

Additional Amount to Reconcile (+): 197 The project TCP has not changed.

Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): 11,980

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Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Project Mission Complete	ID-OIM-09-02		12/30/2002								
Project Start	ID-OIM-09-01		1/1/1999			11/2/1998					

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Project Mission Complete	ID-OIM-09-02				Y						
Project Start	ID-OIM-09-01			Y							